## A BILL FOR AN ACT

RELATING TO ELECTRIC SYSTEMS.

#### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Hawaii's progress toward the widespread use of 2 renewable energy requires modernized electrical infrastructure 3 supported by nimble, robust technology capable of servicing the 4 evolving needs of the grid. Advanced grid modernization 5 technology offers numerous benefits in the face of heavy 6 renewable energy penetration that include increased electrical 7 system reliability and operational efficiency from enhanced 8 system responsiveness and interoperability at the transmission 9 level and below, as well as improved customer energy efficiency **10** practices encouraged by the availability of timely end use energy information. In addition, the increased scale, speed, 11 12 and accuracy of the information provided by advanced grid 13 infrastructure systems can better support initiatives to reduce 14 the State's petroleum dependence, such as increased distributed 15 generation and demand response programs. Electricity providers 16 on Maui and Kauai have already begun deploying advanced **17** residential metering technology with the support of substantial 18 federal funding, but the State lacks a unifying policy for the



- 1 implementation of advanced grid modernization technology. The
- 2 State's achievements in strengthening the Hawaii electric
- 3 system, including the continued development and potential
- 4 delivery of increased renewable energy resources across the
- 5 islands, as well as the ongoing creation of transparent,
- 6 effective system rules, must be accompanied by policies for
- 7 comprehensive enhancement of all aspects of the system,
- 8 including the implementation of advanced grid modernization
- 9 technology.
- 10 The purpose of this Act is to establish a policy for the
- 11 State of Hawaii in support of the implementation of advanced
- 12 grid modernization technology.
- 13 SECTION 2. Chapter 269, Hawaii Revised Statutes, is
- 14 amended by adding a new section to part IX to be appropriately
- 15 designated and to read as follows:
- 16 "S269- Advanced grid modernization technology;
- 17 principles. The public utilities commission, in carrying out
- 18 its responsibilities under this chapter, shall consider the
- 19 value of improving electrical generation, transmission, and
- 20 distribution systems and infrastructure within the State through
- 21 the use of advanced grid modernization technology in order to

- 1 improve the overall reliability and operational efficiency of
- 2 the Hawaii electric system."
- 3 SECTION 3. Section 269-141, Hawaii Revised Statutes, is
- 4 amended by adding a new definition to be appropriately inserted
- 5 and to read as follows:
- 6 ""Advanced grid modernization technology" means equipment,
- 7 facilities, and associated processes that individually or
- 8 collectively function to improve the reliability, resiliency,
- 9 flexibility, and efficiency of the Hawaii electric system by
- 10 providing functional characteristics that improve the
- 11 operational capability of the Hawaii electric system, including
- 12 the automatic restoration of electrical service in response to
- 13 power disturbance events, greater participation in utility
- 14 customer programs, resilient operation against both physical and
- 15 cyber-based attacks, the ability to satisfy power quality
- 16 requirements of new technologies and end users, accommodation of
- 17 energy generation and storage choices, utilization of innovative
- 18 products and services in electricity markets, the improvement of
- 19 customer energy efficiency practices encouraged by the
- 20 availability of timely energy use information, and optimization
- 21 of assets and improving the operational efficiency of the Hawaii
- 22 electric system."

HB810 HD1 HMS 2013-1820

# H.B. NO. 810 H.D. 1

- 1 SECTION 4. New statutory material is underscored.
- 2 SECTION 5. This Act shall take effect upon its approval.

### Report Title:

Grid Infrastructure Modernization Technology; Electric Utilities; Electric Systems; Public Utilities Commission

### Description:

Authorizes the Public Utilities Commission to consider the value of implementing advanced grid modernization technology in the State. (HB810 HD1)

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